Geometry

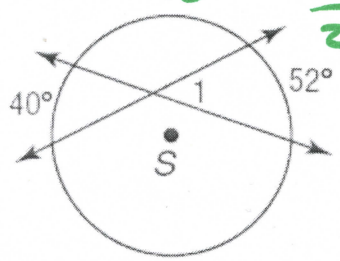
Name ANSWER KEY

Per. ____ Date ____

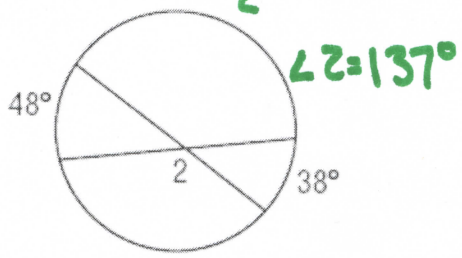
Unit 12 Worksheet #4 – Angles formed by Chords, Secants & Tangents

Vertex is Inside the Circle – Find each measure.

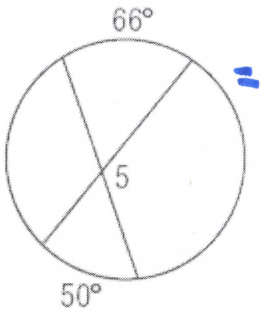
1. $m\angle 1$ = 46° $\quad \frac{40+52}{2}$



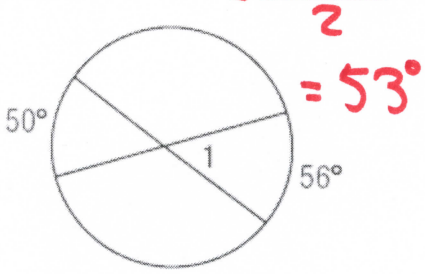
2. $m\angle 2$ $= \frac{360-(48+38)}{2}$ $\angle 2 = 137°$



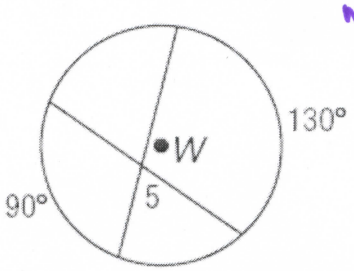
3. $m\angle 5$ $= \frac{360-(66+50)}{2}$ $= 122°$



4. $m\angle 1$ $= \frac{(56+50)}{2}$ $= 53°$



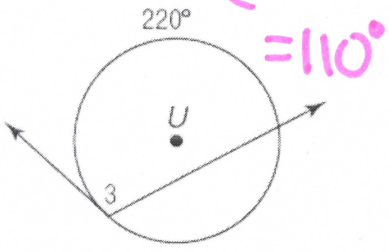
5. $m\angle 5$



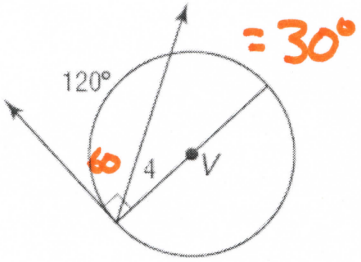
$m\angle 5 = \frac{360-(130+90)}{2}$ $= 70°$

Vertex is On the Circle – Find each measure.

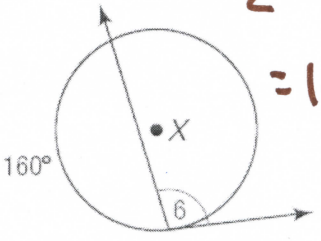
6. $m\angle 3$ $= \frac{220}{2}$ $= 110°$



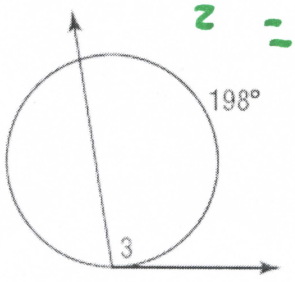
7. $m\angle 4$ $= 90 - 60$ $= 30°$



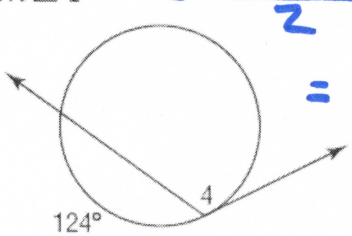
8. $m\angle 6$ $= \frac{360-160}{2}$ $= 100°$



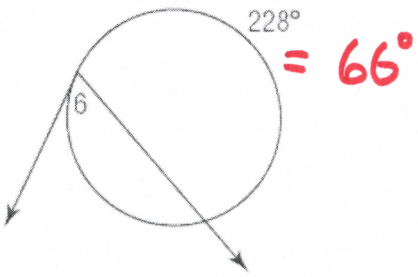
9. $m\angle 3$ $= \frac{198}{2}$ $= 99°$



10. $m\angle 4$ $= \frac{360-124}{2}$ $= 118°$



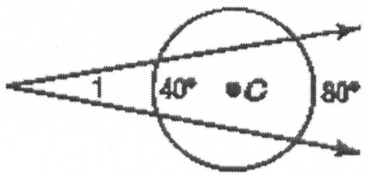
11. $m\angle 6$ $= \frac{360-228}{2}$ $= 66°$



9 012 ws4 p2

Vertex is Outside the Circle - Find each measure.

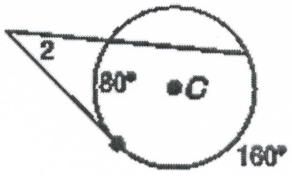
12. m∠1 = 20°



$\frac{80-40}{2}$

$= 20$

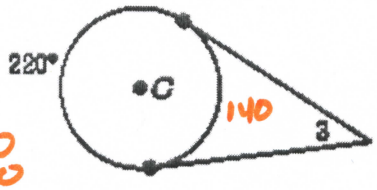
13. m∠2 = 40°



$\frac{160-80}{2}$

$\frac{80}{2}$

14. m∠3 = 40°

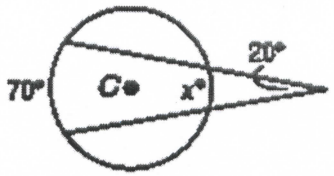


360
- 220
140

$\frac{220-140}{2}$

$\frac{80}{2}$

15. x = 30°

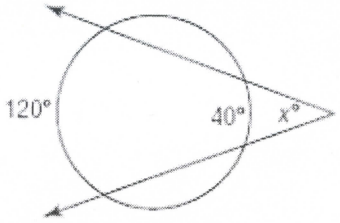


$\frac{70-x}{2} = 20$

$70 - x = 40$

$x = 30$

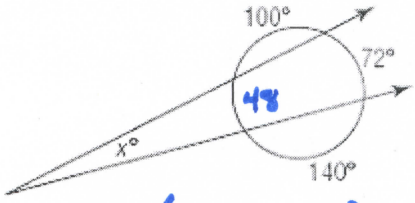
16. x = 40°



$\frac{120-40}{2}$

$= \frac{80}{2}$

17. x = 12°



360 - (100 + 72 + 140)

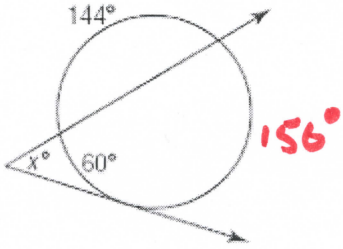
360 - 312 = 48

$= \frac{72-48}{2}$

$= \frac{24}{2}$

18. x = 48°

360
- 204
156

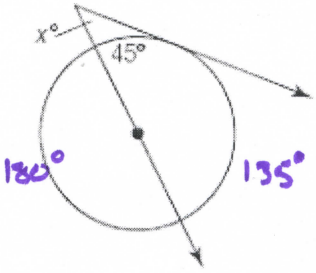


156°

$= \frac{156-60}{2}$

$= \frac{96}{2}$

19. x = 45°



$= \frac{135-45}{2}$

$= \frac{90}{2}$